What is claimed is:

1. An electrical stimulation device for applying a stimulation signal to living tissue, comprising:

a sensor for sensing breathing of a person;

at least a first electrode pair and a second electrode pair for contacting the living tissue of the person; and

a controller responsive to the sensor and operatively connected to the first electrode pair and the second electrode pair, the controller configured to determine a breathing cycle pattern of the person based on input from the sensor and cause the first electrode pair and the second electrode pair to apply a stimulating first waveform signal and second waveform signal, respectively, to the living tissue based on the determined breathing cycle pattern of the person.

2. The electrical stimulation device of claim 1 wherein the controller is configured to cause the first electrode pair and the second electrode pair to apply the first waveform signal and the second waveform signal, respectively, to the living tissue for predetermined durations during each determined breathing cycle of the person during a treatment period, the second waveform signal commencing a predetermined delay after commencement of the first waveform signal in each breathing cycle.

3. The electrical stimulation device of claim 2 wherein the first electrode pair is adapted to be applied to an anal area of the person, and the second electrode pair is adapted to be applied higher than the first electrode pair to a lower spine area of the person.

4. The electrical stimulation device of claim 3 wherein the controller is configured to operate in a mode during which the first waveform signal and the second waveform signal are applied to the living tissue only during a calculated

inhalation period for each determined breathing cycle during the treatment period.

5. The electrical stimulation device of claim 3 wherein the controller is configured to operate in a mode in which the controller causes the first waveform signal and the second waveform signal to be applied to the living tissue for respective durations that commence during a calculated inhalation period and end during a calculated exhalation period for each determined breathing cycle during the treatment period.

6. The electrical stimulation device of claim 3 wherein the controller is configured to operate in a mode in which the controller caused the first waveform signal and the second waveform signal to be applied to the living tissue only during a calculated exhalation period for each determined breathing cycle during the treatment period.

7. The electrical stimulation device of claim 2 wherein the controller is configured to accept user input as to a desired timing of the first and second waveform occurrences within the determined breathing cycles, and adjust the timing accordingly.

8. The electrical stimulation device of claim 3 wherein said first and second electrode pairs are arranged along an elongate member to assist in correct placement of the electrode pairs on the person.

9. The electrical stimulation device of claim 8 further including a third electrode pair connected to the controller for applying a stimulating third voltage waveform to the living tissue of the person, the third electrode being arranged on the elongate member so as to be located on an upper back area of the person higher than the second electrode pair, the controller being configured to apply the third waveform

signal to the living tissue for a predetermined duration during each determined breathing cycle of the person during the treatment period, the third waveform signal commencing a predetermined delay after commencement of the second waveform signal in each breathing cycle.

10. The electrical stimulation device of claim 1 wherein the sensor includes at least two pressure sensing devices mounted on a belt, the belt and sensing devices being configured such that the sensing devices can detect expansion and contraction of the person's torso during breathing when the belt is worn about the person's torso.

11. The electrical stimulation device of claim 1 wherein the controller is configured to operate in a mode during which the controller causes the timing of the first and timing the breathing pattern to vary throughout a treatment time.

12. The electrical stimulation device of claim 1 wherein the controller includes user input means for allowing the person to select a desired intensity of the signals applied to the first and second electrode pairs, the controller being configured to adjust an intensity of the signals accordingly.

13. The electrical stimulation device of claim 12 wherein the user input means includes a range selector for selecting one of a plurality of possible signal intensity ranges, and a further selector for selecting signal intensities within the selected signal intensity range.

14. A method for applying a stimulation signal to living tissue, comprising:

(a) monitoring the breathing pattern of a person; and

(b) applying stimulating electrical waveforms signals to the anal area of the person in response to the monitored breathing pattern.

15. The method of claim 14 including determining a breathing cycle and applying a first stimulating waveform signal to the anal area of the person for a first predetermined duration during each determined breathing cycle.

16. The method of claim 15 including applying a further stimulating waveform signal to a lower spinal area above the anal area of the person for a further predetermined duration during each determined breathing cycle.

17. The method of claim 16 wherein the first predetermined duration and the further predetermined duration overlap, with the further predetermined duration commencing after the first predetermined duration during each breathing cycle.

18. The method of claim 17 wherein the first and further stimulating waveforms are applied only during an inhalation portion of each breathing cycle.

19. The method of claim 17 wherein the first and further stimulating waveforms are applied only during an exhalation portion of each breathing cycle.

20. The method of claim 17 further including applying a third stimulating waveform signal to a further spinal area of the person above the area where the further stimulating waveform is applied for a third predetermined duration during each determined breathing cycle, with the third predetermined duration partially overlapping with and commencing after the further predetermined duration.

21. A method for applying a stimulation signal to living tissue, comprising:

(a) monitoring the breathing pattern of a person; and

(b) applying stimulating electrical waveforms signals to the spinal area of the person in response to the monitored breathing pattern.

22. An electrical stimulation device for applying electrical stimulation to living tissue, comprising:

a plurality of electrode pairs adapted to be applied along a spinal area of a person;

a sensing device for sensing breathing of the person; and

a controller connected to receive signals from the sensing device and control operation of the electrode pairs, the controller being configured to, based on signals received from the sensing device, cause the electrode pairs to apply stimulating electrical pulses to areas of the person to which they are respectively applied.